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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR		ATTORNEY DOCKET NO.
09/346,412	07/01/99	JAMIESON	G	H16-25990

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EXAMINER	
TRAN, M	
ART UNIT	**PAPER NUMBER**
2173	6

DATE MAILED: 11/08/01

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary	Application No.	Applicant(s)
	09/346,412	Gregory Jamieson
	Examiner	Art Unit
	Mylinh T Tran	2173

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *01 July 1999* .

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-48* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-48* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claims _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are objected to by the Examiner.

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

15) ☒ Notice of References Cited (PTO-892)

16) ☒ Notice of Draftsperson's Patent Drawing Review (PTO-948)

17) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .

18) ☐ Interview Summary (PTO-413) Paper No(s). _____ .

19) ☐ Notice of Informal Patent Application (PTO-152)

20) ☐ Other: .

DETAILED ACTION

Drawings

- The drawings are objected to because all boxes should be labeled with appropriate descriptive matter in figure 5B. Correction is required.
- Figures 3 and 11 are objected to text in drawings "Honeywell Confidential and Proprietary". Applicant should submit proposed change in red ink.

Double Patenting

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970);and, *In re Thorington,* 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 1-45 are provisionally rejected under the judicially created doctrine of double patenting over claims 1-39 of copending Application No. 09/345335. This is a provisional double patenting rejection since the conflicting claims have not yet been patented.

- In claim 1, "a graphical shape displayed along the gauge axis representative of a current value of the process variable" is similar to "a graphical shape displayed along the gauge axis representative of a value of the corresponding process variable" of claim 1, Application No. 09/345,335
- In claim 2, "a first bar extending along the gauge axis wherein a first end of the first bar is representative of an engineering hard high limit for the process variable and a second

end of the first bar is representative of an engineering hard low limit for the process variable" is similar to "a first pair of high and low limit elements representative of engineering hard high and low limit values for the corresponding process variable and a second pair of high and low limit elements representative of operator set high and low limit values for the corresponding process variable" of claim 2, Application No. 09/345,335.

- In claim 3, "one or more bars extending along the gauge axis" is similar to "a first pair of parallel lines extending orthogonal to the gauge axis "of claim 3, Application No. 09/345,335.
- In claim 11, "pointer flags associated with operator set limits, the one or more manipulation pointer flags are draggable along the gauge axis to change such operator set limits" is similar to "the operator set high and low limit values" of claim 3, Application No. 09/345,335.
- In claim 8, "to provide for optimization to a pseudo set point" is similar to "a graphical symbol representative of an optimization characteristic for the corresponding process variable" of claim 9, Application No. 09/345,335.
- In claim 23, "one or more process variables include a plurality of manipulated variables and a plurality of controlled variables of a continuous multivariable process" is similar to "a matrix display having the manipulated variables displayed along a first axis thereof and the controlled variables displayed along a second axis thereof" of claim 19, Application No. 09/345,335.

The subject matter claimed in the instant application is fully disclosed in the referenced copending application and would be covered by any patent granted on that copending application since the referenced copending application and the instant application are claiming common subject

matter, as follows: a real time process information to a user with regard to a process that is operable under control of one or more process variables.

Furthermore, there is no apparent reason why applicant would be prevented from presenting claims corresponding to those of the instant application in the other copending application. See *In re Schneller*, 397 F.2d 350, 158 USPQ 210 (CCPA 1968). See also MPEP § 804.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1-48 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schaefer et al. [US. 4,675,147] in view of van Weele et al. [US. 5,631,825].

As to claims 1 and 24, Schaefer et al. discloses a scale extending along a gauge axis (figure 1, column 9, lines 39-53), a graphical shape displayed along the gauge axis representative of a current value of the process variable (column 3, lines 50-67). The differences between the claim and Schaefer et al. is one or more bars extending along the gauge axis, each bar representative of a set of high and low process limit values for a process variable. While van Weele et al. shows the setting limits and changing values in figure 33, column 16, lines 1-10, they do not explicitly teach defining the high and low limit of the process variables. Schaefer et al. discloses one set of variables with user defined high and low limits. It would have been obvious to one of ordinary skill in the art, having the teachings of Schaefer et al. and van Weele et al. before him at the time the invention was made to

modify the gauge axis and the graphical shape as taught by Schaefer et al. to include representative of a set of high and low process limit values for a process variable of van Weele et al. in order to provide an operator station which presents process, thereby enabling human supervision of the plurality of manufacturing processes from a single physical location, as taught by van Weele et al.

As to claims 2 and 25, Schaefer et al. shows one or more bars extending along the gauge axis include a first bar extending along the gauge axis wherein a first end of the first bar is representative of an engineering hard high limit for the process variable and a second end of the first bar is representative of an engineering hard low limit for the process variable (figure 1,column 11, lines 38-64).

As to claims 3 and 26, Schaefer et al. teaches the one or more bars extending along the gauge axis include a first bar extending along the gauge axis (figure 1, column 11, lines 38-64). The difference between Schaefer et al. and the claim is a first end of the first bar is representative of an operator set high limit for the process variable and a second end of the first bar is representative of an operator set low limit for the process variable. However, van Weele et al. shows the operator set high and low limit values on figure 33, 338, column 31, lines 1-13.

As to claims 4 and 27, Schaefer et al. demonstrates the one or more bars extending along the gauge axis further include a delta soft high region within first bar and adjacent the first end thereof and a delta soft low region within the first bar and adjacent the second end thereof (column 13, lines 47-64 and column 14, lines 19-36), and further wherein the delta soft high region and the delta soft low region are representative of a delta optimization range within the operator set high and low limits (column 9, lines 8-38).

As to claims 5 and 28, Schaefer et al. also demonstrates the one or more bars extending along the gauge axis include: a first bar extending along the gauge axis (column 11, lines 38-64), The difference between the claim and Schaefer et al. is a first end of the first bar is representative of an

engineering hard high limit for the process variable and a second end of the first bar is representative of an engineering hard low limit for the process variable; a second bar is representative of an operator set high limit for the process variable and a second end of the second bar is representative of an operator set low limit for the process variable. However, Van Weele et al. show the operator se thigh limit for the process variables and a second end of the second bar is representative of an operator set low limit for the process variable on column 31, lines 1-15.

As to claims 6 and 29, van Weele et al. teaches the second bar extending along the gauge axis representative of operator set high and low limits for the process variable on column 31, lines 1-15 and extends along the gauge axis within the first bar representative of the engineering hard high and low limits for the process variable on figure on figure 33, column 30, lines 33-67. However, Schaefer teaches more detail about the setting limits and changing values on column 11, lines 11-37.

As to claims 7 and 30, Schaefer et al. also teaches the one or more bars extending along the gauge axis further include a delta soft high region within the second bar and adjacent the first end thereof and a delta soft low region within the second bar and adjacent the second end thereof (column 3, lines 42-68), The difference between the claim and Schaefer et al. is the delta soft high region and the delta soft low region are representative of a delta optimization range within the operator set high and low limits. However, van Weele et al. show the operator set high and low limits on column 31, lines 1-15).

As to claims 8 and 31, Schaefer et al. discloses the delta soft high region and the delta soft low region overlap within the second bar to provide for optimization to a pseudo set point (column 16, lines 25-51).

As to claim 9, Schaefer et al. also discloses the graphical user interface further includes user manipulation elements movable to change one or more of the high and low process limit values (column 9, lines 39-53).

As to claim 10, Schaefer et al. shows the scale extending along the gauge axis is automatically adjustable as a function of the movement of the user manipulation elements (column 3, lines 17-49).

As to claims 11, 12, 35, 36 and 37, Schaefer et al. also shows the user manipulation elements include one or more manipulation pointer flags associated with operator set limits, the one or more manipulation pointer flags are draggable along the gauge axis to change such operator set limits and the user manipulation elements include one or more manipulation pointer flags associated with the engineering hard limits, the one or more manipulation pointer flags are draggable along the gauge axis to change such engineering hard limits (column 3, lines 50-65).

As to claims 13, 34, 38 and 40, Schaefer et al. demonstrates the graphical shape representative of the current value of the process variable is a pointing device to the scale proximate (column 13, lines 46-67 and column 14, lines 1-35).

As to claim 14, Schaefer et al. teaches graphical user interface further includes at least one additional graphical shape displayed along the gauge axis representative of at least one additional value for the process variable (column 16, lines 25-50)

As to claims 15, 17 and 39, Schaefer et al. also teaches the additional graphical shape representative of at least one additional value for the process variable has a color of a, set of colors that reflects the state of the current value for the process variable relative to the set of high and low process limit values (column 15, lines 20-32).

As to claim 16, Schaefer et al. shows the scale extending along the gauge axis is adjustable as a function of a current value of the process variable relative to the one or more process limits values (figure 6, column 13, lines 47-65).

As to claim 18, Schaefer et al. also shows a color for the graphical shape represents one of a current value of the corresponding process variable being within the set of high and low process limit values, the current value of the corresponding process variable being within a certain percentage of a limit

value of the set of high and low process limit values, and the current value of the corresponding process variable being outside of the set of high and low process limit values (column 15, lines 20-32).

As to claim 19, Schaefer et al. discloses a background of a region adjacent the one or more bars along the gauge axis is of a color when the graphical shape representative of the current value of the process variable is outside of the high and low process limit values, and further wherein the region is representative of engineering physical limits of the process variable (column 9, lines 39-66).

As to claim 20, van Weele et al. discloses the graphical user interface further includes a trend graph for the process variable (column 6, lines 30-35).

As to claim 21, van Weele et al. also discloses the trend graph includes at least one of a historical trend graph and a prediction trend graph for displaying trend information representative of process variable values (column 14, lines 10-65).

As to claim 22, van Weele et al. teaches the trend graph includes at least one of a historical trend graph and a prediction trend graph for displaying trend information representative of process variable limits (column 36, lines 35-52).

As to claim 23, van Weele et al. also teaches the one or more process variables include a plurality of manipulated variables and a plurality of controlled variables of a continuous multivariable process (column 35, lines 31-61).

As to claim 32, Schaefer et al. demonstrates the optimization pseudo set point is proportional to the delta soft high region and delta soft low region (column 16, lines 25-51).

As to claim 33, Schaefer et al. also demonstrates displaying user manipulation elements movable to change one or more of the high and low process limit values, moving such user manipulation elements to generate data representative of changed high or low process limit values; and providing

such data to a controller of the process (column 3, lines 50-65 and column 13, lines 46-67 and column 14, lines 1-35).

As to claim 41, Schaefer et al. shows rescaling the scale extending along the gauge axis as a function of the current value of the process variable relative to the set of high and low process limit values (column 8, lines 60-68 and column 9, lines 1-7).

As to claim 42, Schaefer et al. also shows displaying the graphical shape representative of the current value of the process variable includes: determining a state of the current value of the process value relative to the set of high and low process limit values and displaying the graphical shape in a color of a set of colors that reflects the state of the current value for the process variable (column 17, lines 4-49).

As to claim 43, Schaefer et al. teaches determining the state of the current value of the process value relative to the set of high and low process limit values includes determining whether the current value of the process variable is within the set of high and low process limit values (column 11, lines 11-37), and determining whether the current value of the process variable is within a certain percentage of a limit value of the set of high and low process limit values, and determining whether the current value of the process variable is a certain percentage outside of the set of high and low process limit values (column 9, lines 30-38).

As to claim 44, Schaefer et al. also teaches determining whether the current value of the process variable is outside of the set of high and low process limit values and displaying a graphical element representative of engineering physical limits of the process variable when the current value of the process variable is outside the set of high and low process limit values (figure 1, 16, column 8, lines 36-59).

As to claim 45, van Weele et al. demonstrates displaying a graphical element

representative of engineering physical limits of the process variable includes displaying a background region adjacent the one or more bars along the gauge axis in a particular color representative of engineering physical limits (column 6, lines 30-65).

As to claim 46, van Weele et al. also demonstrates displaying a trend graph for the process variable with the displayed scale, gone or more bars, and the graphical shape representative of the current value of the process variable (column 14, lines 11-26).

As to claim 47, van Weele et al. discloses displaying the trend graph includes displaying at least one of a historical trend graph and a prediction trend graph for the process variable representative of process variable values (column 14, lines 27-67).

As to claim 48, van Weele et al. also discloses displaying the trend graph includes displaying at least one of a historical trend graph and a prediction trend graph for the process variable representative of process variable limits (column 14, lines 1-50).

Conclusion

Any inquiry concerning this communications or earlier communications from the examiner should be directed to examiner Mylinh Tran whose telephone number is (703) 308-1304. The examiner can normally be reached on Monday to Friday from 8:OOam to 5:OOpm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Cabeca can be reached at the number (703) 308-3116. The fax number for this group is (703) 308-9051.

Any inquiry of general nature or relating to the status of this application or proceeding should be directed to the group receptionist whose telephone number is (703) 305-3900.

Mylinh Tran

Art Unit: 2173

JOHN CABECA
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